

REMARKS

Claims 1 – 14 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 – 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Badillo et al. (U.S. Pat. No. 6,770,009). This rejection is respectfully traversed.

Claims 1 and 6, as amended herein, include adjusting one of spark timing of the engine and an electronically controlled clutch (ECC) pressure based on a load signal prior to engagement of an ECC and adjusting spark timing of the engine based on a rate of change of engine speed after engagement of the ECC, wherein engagement of the ECC is determined based on an engagement signal. Badillo fails to teach or suggest adjusting one of spark timing of the engine and an electronically controlled clutch (ECC) pressure based on a load signal prior to engagement of an ECC and adjusting spark timing of the engine based on a rate of change of engine speed after engagement of the ECC, wherein engagement of the ECC is determined based on an engagement signal.

Badillo discloses a system for controlling engine speed during vehicle launch. The system determines a base spark timing (SA_b) of the engine and modifies the base spark timing based on a rate of change of the engine speed (RPM). More specifically, a spark timing offset (SA_{offset}) is determined based on the rate of change of the engine RPM and a new spark timing (SA_{new}) is determined as the difference between the base spark timing and the spark timing offset (Col. 7, Lines 62 – 65). The engine is regulated

based on the new spark timing throughout the entire vehicle launch (Col. 6, Lines 54 – 55). Badillo also notes that it is undesirable to detect engagement of the ECC (Col. 3, Line 14 – 18).

Because the system of Badillo regulates spark timing solely based on the rate of change of the engine speed throughout vehicle launch, Badillo fails to teach or suggest generating a load signal based on an anticipated engine load and adjusting the spark timing based on the load signal prior to engagement of the ECC. Further, Badillo fails to teach or suggest adjusting the ECC pressure based on the load signal. Badillo not only fails to teach or suggest determining engagement of the ECC based on an engagement signal, but in fact expressly states that such a method of determining engagement of the ECC is undesired.

In view of the foregoing, claims 1 and 6 define over the prior art. Therefore, reconsideration and withdrawal of the rejections are respectfully requested.

Claims 1 – 5 and 7 – 10 each ultimately depend from one of claims 1 and 6, which define over the prior art, as discussed in detail above. Therefore, claims 1 – 5 and 7 – 10 also define over the prior art for at least the reasons stated with respect to claims 1 and 6, and reconsideration and withdrawal of the rejections are respectfully requested.

Claim 11 includes detecting a degree of engagement of the ECC, generating a load signal upon detecting near full engagement of the ECC, adjusting spark timing of the engine based on the load signal prior to full engagement of the ECC, and adjusting spark timing of the engine based on a rate of change of engine speed after engagement of the ECC. Badillo fails to teach or suggest detecting a degree of engagement of the

ECC, generating a load signal upon detecting near full engagement of the ECC, adjusting spark timing of the engine based on the load signal prior to full engagement of the ECC, and adjusting spark timing of the engine based on a rate of change of engine speed after engagement of the ECC.

As discussed in detail above, the system disclosed in Badillo adjusts engine spark timing based on the rate of change of the engine RPM throughout vehicle launch (i.e., before, during and after engagement of the ECC). As also discussed in detail above, Badillo expressly states that detecting engagement of the ECC is undesired. Therefore, Badillo fails to teach or suggest either adjusting a spark timing of the engine based on a load signal prior to engagement of the ECC or detecting a degree of engagement of the ECC. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 12 – 14 each depend from claim 11, which defines over the prior art, as discussed in detail above. Therefore, claims 12 – 14 also define over the prior art for at least the reasons stated with respect to claim 11, and reconsideration and withdrawal of the rejections are respectfully requested.

OTHER CLAIM AMENDMENTS

Claim 2 has been amended herein to conform with amended claim 1. No new matter has been entered.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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